

20278

5/148/60/000/009/011/025

A161/A030

The aspects of metal pressure ...

material. [Abstracter's note: The graphs are not included]. Their applicability for practical use was verified by comparison with data on the thickening of the pipe wall in mass rolling in reduction mills. The difference did not exceed 5%. An analogous verification is made for the case of non uniform pipe deformation, or so-called edge effect (Fig.3). (The end of a thin-wall pipe has been compressed on the radius for a value ΔR , and plastic deformation reached for the length l). The deformation is highly non uniform). The deformed state of the pipe end was calculated, and simple equations obtained after calculation of definite integrals and partial derivatives from the equation (19). The solution was

$$l_n = 2 \sqrt{RS}$$

and

$$l_y = 1.61 \sqrt{RS}$$

where l_n is the case of pipe made of ideally plastic material and practically matches the result of the precise solution obtained by A.A.Ilyushin (Ref.5) :

$$l = 1.985 \cdot \sqrt{R} \cdot S.$$

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The value ℓ_y is for pipe of nonrigid linear strengthening material and 23% below ℓ_u . Special experiments were carried out (together with Engineer N.M.Perel'muter) to find out which value is nearer to the real one (Fig.3b). The deviation of ℓ_y from the practical measurements were not above 8%, and of ℓ_u 18%. It can be concluded that the hypothetical nonrigid linear strengthening and ideal plastic materials are approximations "from right and left", and the hypothesis of nonrigid linear strengthening material gives more accurate results. There are 3 figures, 3 tables and 5 Soviet-bloc references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (The Ural Polytechnical Institute) and Pervoural'skiy novotrubnyy zavod (Pervoural'sk New Pipe Plant)

SUBMITTED: 15 February 1960

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11400 1496, 1045, 1454

23619
S/148/60/000/012/008/020
A161/A133AUTHOR: Kolmogorov, V. L.TITLE: Reduction of thin strip by elastic diesPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya,
no. 12, 1960, 84 - 90

TEXT: The author proves theoretically that the problem of reduction of a thin long metal strip between flat resilient dies (Fig. 1) can be solved by the use of the variation principle of the possible variations of the deformed state [Ref. 1 and 2: L. M. Kachanov, Mekhanika plasticheskikh sred (The Mechanics of Plastic Media), Gostekhizdat, 1945, and Osnovy teorii plastichnosti (Fundamentals of the Theory of Plasticity), GTTI, 1956]. Assuming that the die is subjected to purely elastic deformations, and the metal strip to purely plastic ones, a discontinuous solution [Ref. 3: I. Ya. Tarnovskiy, A. A. Pozdnyev, V. B. Lyashkov, Deformatsiya metalla pri prokatke (Deformation of Metal in Rolling), Metallurgizdat, 1956; and Ref. 5: Tarnovskiy, Pozdnyev and Ganago, Deformatsii i usiliya pri obrabotke metallov davleniyem (Deformations and Stresses in Pressure Working of Metals)],

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Reduction of thin strip by elastic dies

Mashgiz, 1959] is plotted beginning with the variation equation of possible deformed states:

$$\delta [A_d + A_p + A_f] = 0 \quad (1)$$

where A_d is the elastic deformation work of the dies; A_p - the plastic deformation work of the strip, and A_f - the work of friction forces on the contact surface of the strip. This equation is developed into a system of linear or canonical equations; the displacement functions are determined, and the stresses in the die and the specific pressure of the strip on the die are calculated. For the case of the reduction of strip from low-strengthening material by steel dies the roots for the canonical equations system are found by simple formulae:

$$a_1 = 2\sigma_s \frac{h}{l} (0.398 \frac{h}{l} + 0.193 \cdot \mu) \cdot 10^{-7}, \quad (11)$$
$$b_1 = -2\sigma_s \frac{h}{l} (2.54 \frac{h}{l} + 1.23 \cdot \mu) \cdot 10^{-7},$$

where σ_s is the yield limit of plastically deformed material, in kg/cm². Finally, the flattening of the die, or the distortion of its surface, is

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Reduction of thin strip by elastic dies

determined by the formula

$$w = 2\sigma_s \left(2.54 \frac{h}{l} + 1.23 \cdot \mu \right) \cdot 10^{-7} \cdot \frac{l^3}{l^2 + x^3},$$

and the deflection value by the formula

$$w_0 = 2\sigma_s \left(2.54 \frac{h}{l} + 1.23 \cdot \mu \right) \cdot 10^{-7} \cdot l,$$

while the ratio of the deflection to the flattening at the strip edge is found as

$$\frac{w_0}{w_1} = 2.$$

A practical example is calculated for strip with $l = 500$ mm and $h = 0.5$ mm; the yield limit of the strip material $\sigma_s = 2,500$ kg/cm², and friction coefficient $\mu' = 0$ in one case and $\mu'' = 0.2$ in the other. The deflection of the die surface is

$$w_0' = 6.35 \cdot 10^{-4} \text{ mm, and } w_0'' = 6.25 \cdot 10^{-2} \text{ mm.}$$

In reduction of very thin strip the deflection w_0 can become equal to height h . It is possible that plastic deformation will then be absent in the strip center part. The minimum height h at which plastic deformation is not

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possible under these conditions is determined by the formula

$$\left(\frac{h}{l}\right)_k = \frac{2.466_3 \cdot \mu}{107 - 5.086_s} \quad (12).$$

The limit ratio for this instance is $(h/l) = 1.2 \cdot 10^{-4}$. Hence, the minimum strip thickness that can be obtained by compression by dies at $\mu = 0.2$ will be 0.17 mm. The highest calculated stresses in the die are in the surface in the spot corresponding to the strip mid. They are (using an equations system in the derivation in this article)

$$\varepsilon_x = a_1, \varepsilon_y = 2b_1 \cdot \frac{1}{h}, \gamma_{xy} = 0,$$

and the condition for checking the strength of the dies

$$\frac{\sigma_s}{\sigma_s} > 0.655 \cdot (2.06 + \frac{1}{h}), \quad (13)$$

It shows how many times the hardness of the steel dies should exceed the hardness of the work material. At a very low friction coefficient when $\mu \cdot \frac{1}{h} \approx 0$, the dies must have a hardness not below 135% of the work material.

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4"

Reduction of thin strip by elastic dies

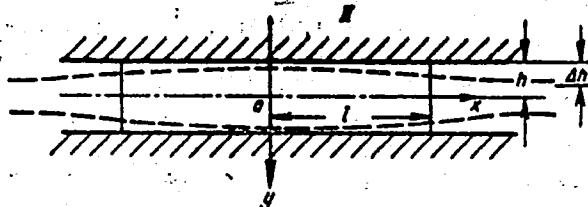
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Consequently, plastic deformation of thin strip by elastic dies is possible when the two conditions, (12) and (13) are satisfied at the same time. There are 2 figures and 6 Soviet-bloc references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: January 26, 1960

Fig. 1.



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20391

S/133/61/000/002/007/014
A054/A033

189530 1454, 1138, 1208

AUTHORS: Kolmogorov, V.L., Candidate of Technical Sciences, and Bogatov,
N.A., Engineer

TITLE: Manufacture of Tubes Lined With Vinyl Plastics

PERIODICAL: Stal', 1961, No. 2, pp. 152-154

TEXT: On account of their great strength and the anti-corrosive properties of polyvinyl steel tubes with polyvinyl lining are being used to an increasing extent, mainly for aggressive liquids. The present technology applied in lining steel tubes with prestressed vinyl-plastics does not guarantee a complete bond between steel and the vinyl-plastic. Consequently, when the temperature changes during the operation, there is no uniform elongation or contraction of the steel tube and vinyl-plastic lining: the latter contracts or elongates up to 6 times the extent of steel tubing. These drawbacks can be eliminated by a simultaneous reduction of tube and plastic lining. This ensures a close adherence between them and enables the use of pressures up to 40 kg/sq cm. The relation between stresses and deformations is charac-

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Manufacture of Tubes Lined With Vinyl Plastics

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terized with sufficient accuracy with the aid of the following linear equation: $\sigma_s' = 20 + 625 \epsilon$ (2), where σ_s' = stress, kg/sq cm; ϵ = relative deformation. The diagram plotted for cylindrical vinyl-plastic specimens (18 mm in diameter and 30 mm in length) can be approximated with the formula:

$$\sigma_v' = 10^2(3.06 \epsilon - 30.2 \epsilon^2) \quad (3)$$

(Abstractor's Note: subscript v is the translation of the Russian subscript B (vinyl) and subscript s that of the Russian subscript c (stal'); the external specific pressure is calculated on the condition of equilibrium of the tube during reduction:

$$P = \frac{2 (\sigma_s' s_s + \sigma_v' s_v)}{d + 2s_s - \Delta d} \quad (4)$$

where d = diameter before deformation, Δd = diametrical reduction of the plastic lining. To calculate the residual stresses in the plastic lining, it is necessary to determine the stresses of unrelief under the effect of a pressure p with reversed sign. When assuming equilibrium at unloading, the formula

$$p(d + 2 s_s - \Delta d) = 2 \sigma_s^p s_s + 2 \sigma_v^p s_v \quad (5)$$

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is obtained (σ_s^p , σ_v^p - stresses during relief) or, when considering (4):

$$\sigma_s s_s + \sigma_v s_v = \sigma_s^p s_s + \sigma_v^p s_v \quad (6)$$

When assuming the simultaneity of deformation under unloading,

$$\frac{\sigma_v^p}{E_v} = \frac{\sigma_s^p}{E_s} \quad (7)$$

is obtained, where E_s , E_v - elasticity moduli of steel and vinyl plastic. From formula (6) it follows that

$$\sigma_v^p = \frac{\sigma_s s_s + \sigma_v s_v}{\frac{E_s}{E_v} s_s + s_v} \quad (8)$$

The residual stresses of vinyl-plastics are determined by the algebraic summation of σ_v^o and σ_v^p and (based on (2) and (3)) have the following absolute value:

$$\sigma_v^o = 10^2 (3.06\epsilon - 30.2\epsilon^2) - \frac{1}{\frac{E_s}{E_v} s_s + s_v} (20 + 625\epsilon) s_s + 10^2 (3.06\epsilon -$$

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"X" 11

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Manufacture of Tubes Lined With Vinyl Plastics

$$-30.2 \epsilon^2) s_v \quad (9)$$

As vinyl-plastic expands at room temperature and the considerable residual stresses decrease in time to 2 kg/mm^2 , only a deformation ϵ , ensuring a stress of $\sigma_v^0 = 2 \text{ kg/mm}^2$ must be imparted to the tubes during manufacture; the required ϵ value can be calculated by (9). Tests were carried out to prove this for a joint contraction of lined tubes, $68 \times (3+5.5)$ mm in size with a diametrical reduction of the plastic coating of 1, 2, 3 and 4%. 18 samples were kept at room temperature for varying times. Next, the vinyl-plastic linings were separated from the steel tubes and the relative change in their diameter was determined (table). Coated tubes produced with joint reduction may be cooled considerably when being used. It was also found that the higher the residual stresses in the lining tube, the greater the temperature drops it will stand without separating. The value of residual stresses in plastic linings depends on the maximum temperature applied. At $+20^\circ\text{C}$, the elastic stresses in vinyl-plastic linings amount to 2 kg/mm^2 ; when the temperature increases, they decrease proportionately and disappear at $+80^\circ\text{C}$. The equilibrium of residual stresses in steel and vinyl plastic is expressed by

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$$\sigma_s^0 = \sigma_v^0 \frac{s_v}{s_s} \quad (10), \text{ where: } \sigma_v^0 =$$

stress applied in vinyl-plastic. Under thermal effects, residual stresses are connected with thermal stresses. The plastic lining separates from the steel surface when the sum of residual and thermal stresses is equal to 0. The following formula expresses the temperature range within which the lined tube is in good working condition:

$$\Delta t = \frac{\frac{\sigma_v^0}{E_v} + \frac{\sigma_s^0}{E_s}}{\frac{1}{d_v} - \frac{1}{d_s}} \quad (11)$$

Thus, for instance, according to (10) and (11) tubes manufactured with a joint contraction (at $+20^\circ\text{C}$, $\sigma_v^0 = 2 \text{ kg/mm}^2$) have a temperature range of 100°C ; between $+20^\circ\text{C}$ and -80°C the tube is monolithic and separation of steel and plastic lining occurs below -80°C . There are 3 figures, 3 tables, and 2 Soviet references.

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A054/A033 X

Manufacture of Tubes Lined With Vinyl Plastics

ASSOCIATION: Pervoural'skiy novotrubniyy zavod (The Pervoural' Novotrubnyy Plant) and Severskiy metallurgicheskiy zavod (The Seversk Metallurgical Plant)

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S/133/62/000/009/005/009
A054/A127

AUTHORS: Kolmogorov, V.L., Candidate of Technical Sciences, Selishchev,
K.P., Engineer

TITLE: Cold drawing of tubes under improved lubricating conditions

PERIODICAL: Stal', no. 9, 1962, 830 - 831

TEXT: Tests were carried out to improve the lubrication in drawing tubes without using mandrels. For this purpose a simple device consisting of a sleeve and a finely dispersed clean high-viscosity sodium soap powder were used. Tubes of "20" and 1X18H9T (Kh18NyT) grade steel were drawn with a wall-thickness-to-diameter ratio varying between 0.05 and 0.13, at drawing rates of 0.17 - 0.58 m/sec. The soap powder applied forms a dense, glassy, adhesive coating, 0.007 - 0.031 mm thick, on the tube surface, which is sufficient to prevent any direct contact between the drawing die and the tube surface. When this new lubrication method is applied, the service life of the drawing tool will be raised considerably; moreover, stainless steel tubes can be drawn by dies of 12X5MA (12Kh5MA) steel instead of "pobedit" (sintered carbon); the drawing power required will be reduced by 27 - 29%, and stainless steel tubes of a higher surface quality can be

Card 1/2

KOLMOGOROV, V.L., kand.tekhn.nauk; SELISHCHEV, K.P., inzh.

Cold drawing of tubes with improved lubrication. Stal' 22
no.9:830-831 S '62. (MIRA 15:11)

1. Ural'skiy nauchno-issledovskiy institut chernykh metallov.
(Drawing (Metalwork))
(Metalworking lubricants)

TARNOVSKIY, I.Ya., prof., doktor tekhn. nauk; POZDEYEV, A.A., kand.
tekhn. nauk; KOLMOGOROV, V.L., kand. tekhn. nauk

Calculating frictional forces in variational problems of
metalworking by pressure. Stal' 22 no.6:538-539 Je '62.
(MIRA 16:7)

(Metalwork) (Internal friction)

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; KOLMOGOROV, V.L.; VAYSBURD,
R.A.; GUN, G.Ya.; KOTEL'NIKOV, V.P.; TARNOVSKIY, V.I.;
SKOROKHODOV, A.N.

[Variational principles of mechanics in the theory of metal-
working by pressure] Variatsionnye printsipy mekhaniki v teo-
rii obrabotki metallov davleniem. Moskva, Metallurgizdat,
1963. 52 p. (MIRA 17:5)

TARNOVSKIY, Iosif Yakovlevich; POZDEYEV, Aleksandr Aleksandrovich;
GANAGO, Oleg Aleksandrovich; KOIMOGOROV, Vadim Leonidovich;
TRUBIN, Valeriy Nikolayevich; VAYSBURD, Rual'd Arkad'yevich;
TARNOVSKIY, Valeriy Iosifovich; GOROBINCHENKO, V.M., red.
izd-va; BEKKER, O.G., tekhn. red.

[Theory of working metals by pressure; variational methods
of calculating forces and deformations] Teoriia obrabotki
metallov davleniem; variatsionnye metody rascheta usilii i
deformatsii. [By] I.IA.Tarnovskii i dr. Moskva, Metallurg-
izdat, 1963. 672 p. (MIRA 17:1)

KOLMUGOROV, V.L.; ORLOV, S.I.; SELISHCHEV, K.P.; LEKARENKO, Ye.M. [deceased];
POKROVSKAYA, G.N.; TIKHONOV, D.Ya.; BOGOMOLOV, I.F.

Drawing wire of nonferrous metals and alloys in conditions of fluid
friction. TSvet. met. 36 no.12:65-67 '63. (MIRA 17:2)

KOLMOGOROV, V.L.

Rupture in cross rolling and forging. Izv. vys. ucheb. zav.; chern. met. 6 no.11;123-135 '63. (MIRA 17:3)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.

ACCESSION NR: AR4015697

S/0081/63/000/023/0400/0400

SOURCE: RZh. Khimiya, Abs. 23M164

AUTHOR: Zhukova, V. P.; Kolmogorov, V. L.; Svetlov, V. A.; Smirnov, N. S.

TITLE: Investigation of the mechanical durability and thermal stability of enamel and glass coatings on the inner surface of steel pipes

CITED SOURCE: Tr. Ural'skogo n.-i, in-ta chern. met., v. 2, 1963, 248-259

TOPIC TAGS: enamel, glass, enamel coating, glass coating, steel pipe, pipe lining

ABSTRACT: It was established that with a decrease in the coefficient of thermal expansion of enamels and glass which are utilized in the coating of the inner surface of steel pipes, the mechanical durability and thermal stability of the coatings significantly increase. Addition of Fe oxides (up to 10%) to prime enamel and the use of frittered ground glass, the properties of which are close to those of the glass coatings, as the prime coating also have a favorable effect on the properties of the enamel and glass coatings studied. A method is developed for calculating the stresses which appear in the coating under the influence of forces which deform the pipe. Authors' summary

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DATE ACQ: 09Jan64

SUB CODE: MT

ENCL: 00

L 57522-65 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b)/EWA(c) - F-4 - JD/HW
ACCESSION NR: AF5013009

UR/0137/65/000/004/D011/D011
621.771.001

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B

SOURCE: Ref. zh. Metallurgiya, Abs. 4D73

AUTHOR: Vostrikov, G. A.; Kolmogorov, V. L.

TITLE: Choice of a method for manufacturing ribbed sections

CITED SOURCE: Tr. "Iral'skogo n.-i. in-ta chern. met.", v. 3, 1964, 41-49

TOPIC TAGS: metal extrusion, metal drawing, metal rolling

TRANSLATION: Formulas were derived for calculating deformation of a ribbed shape (groove space factor and drawing coefficient) during drawing and extrusion. In this a method of preparing ribbed shapes with ratios $S_1/a = 1$ and $b/a = 2.5-3$, it is kept in mind that it is possible to obtain drawing to obtain a rib with ratio $h/S_1 < 1.4$, as compared to $h/S_1 < 2.5$ by rolling. Sections with a higher rib should be produced by extrusion. N. Yudina.

SUB CODE: IE, MM ENCL: 00

Card 1 of 1

KOLOMOGOROV, V.L.; URAL'SKIY, V.I.; YERIKLINTSEV, V.V.

Analytic determination of the stressed state in the upset forging of a strip and stretch forming. Izv. vys. ucheb. zav.; chern. met. 7 no.8:110-115 '64. (MIRA 17:9)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.

KOLMOGOROV, V.L.; TARNOVSKIY, I.Ya.; YERIKLINTSEV, V.V.

New method of stress calculations in the pressure working of
metals. Izv. vys. ucheb. zav.; chern. met. 7 no.9:74-80 '64.
(MIFI A 17:6)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh
metallov i Ural'skiy politekhnicheskiy institut.

KOLMOGOROV, V.L.; TARNOVSKIY, I.Ya.; YERIKLINTSEV, V.V.

Stressed state during the upsetting of a thick strip. Report
no.1. Izv. vys. ucheb. zav.; chern. met. 7 no.9:95-101 '64.
(MIRA 17:6)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh
metallow i Ural'skiy politekhnicheskiy institut.

TARNOVSKIY, I.Ya.; KOLMOGOROV, V.L.; RIMM, E.R.

Stressed state during the swaging of a strip with stiff ends
(plane problem). Izv. vys. ucheb. zav.; chern. met. 7 no.10:
86-91 '64. (MIRA 17:11)

1. Ural'skiy politekhnicheskiy institut.

KOLMOGOROV, V.L.; TARNOVSKIY, I.Ya.; YERIKLINTSEV, V.V.; LEVANOV, A.N.

Stressed state during the upsetting of a thick strip. Report No.2. Izv.
vys. ucheb. zav.; chern. met. 7 no.11:93-99 '64.

(MIRA 17:12)

1. Ural'skiy politekhnicheskiy institut i Ural'skiy nauchno-
issledovatel'skiy institut chernykh metallov.

TARNOVSKIY, I. Ya.; KOIMOGOROV, V.L.; RIMM, E.R.; VOSTRIKOV, G.A.

Variation method of calculating the state of stress during
rolling. Izv. vys. ucheb. zav.; chern. met. 7 no.12:78-87 '64
(MIRA 18:1)

1. Ural'skiy politekhnicheskiy institut.

TARNOVSKIY, I.Ya.; KOLMOGOROV, V.L.; YERIKLINTSEV, V.V.

Method of investigating a stressed and deformed state by the simultaneous application of the Lagrange and Castigliano principles. Izv.vys.ucheb.zav.; chern. met. 8 no.4:107-111 '65.

(MIRA 18:4)

1. Ural'skiy politekhnicheskiy institut i Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.

L 59481-65 EPF(c)/ENT(m)/ENP(k)/EIA(c)/ENP(s)/T/ENT(v)/ENP(t) Pr-l/Pf-l DJ/
JW/JD/HW

ACCESSION NR: AR5015177 UR/0137/65/000/005/D035/D035

U. zh. Metalurgiya, Abs. 51206

AUTHOR: Kolmogorov, V. L.; Selishchev, K. P.; Orlov, S. I.

TITLE: Drawing of tubes, rods, and wire under conditions of hydrodynamic friction

CITED SOURCE: Tr. Ural'skogo n.-i. in-ta chern. met., v. 3, 1964,

TOPIC TAGS: drawing, tube, rod, wire, hydrodynamics, friction,
friction, rheological property, lubricants

TRANSLATION: The article presents the results of an industrial test of drawing tubes and wires under conditions of hydrodynamic friction. The use of dies, the results of a study of the rheological properties of lubricants, and the development of a theory of drawing under conditions of hydrodynamic friction. Drawing under conditions of hydrodynamic friction permits increasing the speed of drawing, increasing the durability of the instrument by 11 times.

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L 59481-65

ACCESSION NR: AR5015177

lowering the energy consumed in drawing by 30%, and eliminating preparation of the metal before drawing. 14 literature titles.
G, Svodtseva,

SUB CODE:IE,MM

ENCL: 00

KC
Card 2/2

ORLOV, S.I.; KOLMOGOROV, V.L.; ANTIPIN, S.V.; ZAVAROV, S.I.; SOLOV'YEV, B.P.;
VOROB'YEV, G.M.; KIRCHUKOV, A.I.

Introduction of sectional drawlates for the manufacture of low-carbon wire-steel. Metallurg. 10 no.10:28-29 O '65.

(MIRA 18:10)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov
i Revdinskiy metizno-metallurgicheskiy zavod.

L 32038-66 EWT(d)/EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/EM/DJ
ACC NR: AP6018948 SOURCE CODE: UR/0126/66/021/006/0910/0914

61
59

B

AUTHOR: Kolmogorov, V. L.; Shishmintsev, V. F.

ORG: Ural Scientific Research Institute for Ferrous Metals (Ural'skiy NII chernykh metallocv)

TITLE: Dependence of steel ductility on hydrostatic pressure

SOURCE: Fizika metallocv i metallovedeniye, v. 21, no. 6, 1966, 910-914

TOPIC TAGS: steel, carbon steel, alloy steel, ball bearing steel, stainless steel, steel ductility, hydrostatic pressure, pressure effect/30 KhGSA steel, ShKh15 steel, Kh18N10T steel

ABSTRACT: Experiments have been made to determine the quantitative relationship between the ductility of metals, particularly of steels, and the stress conditions. The σ/T ratio, where σ is the mean hydrostatic pressure equal to $1/3(\sigma_1 + \sigma_2 + \sigma_3)$, and T is the magnitude of shear stress, was used as an index characterizing the stress condition. The shear stress (τ_f) corresponding to the beginning of the failure of metal was used to characterize the metal ductility. Specimens of hot-rolled steel 20, steel 40, 30KhGSA low-alloy steel, ShKh15 ball bearing steel, and Kh18N10T stainless steel were subjected to standard tensile and bend tests, compression tests at atmospheric and hydrostatic pressures of 2000 atm, and hydrostatic extrusion (with a high-pressure fluid). On the basis of the experimental results, formulas were

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UDC: 539.374

L 04314-67 EWP(k)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6018388 (N)

SOURCE CODE: UR/0133/66/000/006/0530/0532

AUTHORS: Aleshin, V. A.; Kolmogorov, V. L.; Ural'skiy, V. I.; Sokolov, I. A.; Moiseyev, G. P.; Krovskov, R. P.; Fotov, A. A.; Pavlov, A. I.; Khoroshikh, Yu. G.

ORG: Pervoural'skiy New Pipe Plant (Pervoural'skiy novotrubnyy zavod); Ural Scientific Research Institute for Ferrous Metals (Ural'skiy n.-i. institut chernykh metallov)

TITLE: Shortcut in the production cycle of cold-rolled pipes, f

SOURCE: Stal', no. 6, 1966, 530-532

TOPIC TAGS: metal tube, metal drawing, metal rolling, steel / 20 steel, 45 steel, 30KhGSA steel, OKh18N10T steel

ABSTRACT: An investigation of plasticity after cold rolling of the more widely used steel pipes (20, 30KhGSA, 45, OKh18N10T) was carried out. The plasticity of the metal (ψ) was determined as a function of the elongation coefficients S_x/S_o of and diameter ratio d_x/d_o . The experimental results are shown graphically (see Fig. 1). The maximum residual stresses were calculated after H. Anderson and G. Fahlman (Journal of the Institute of Metals, 1925, v. 34, No. 3, p. 271-275). It was found that repeated drawing after cold rolling without employing an intermediate thermal treatment yielded pipes with satisfactory mechanical properties. The combined drawing and rolling process permits a shortening of the usual

UDC: 621.774.353.37

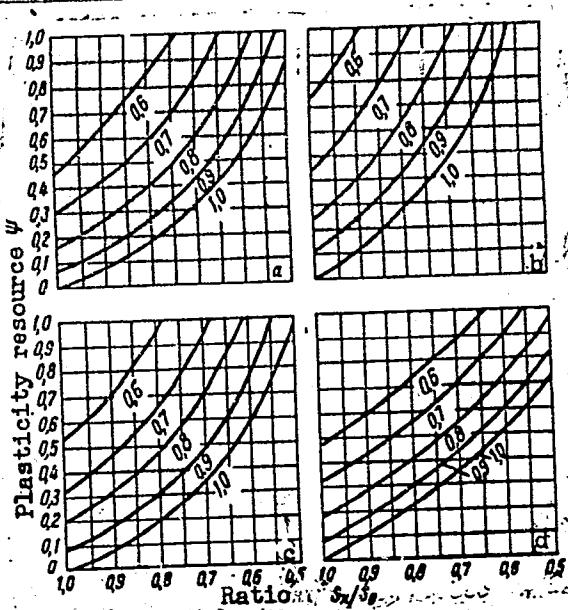
Card 1/2

45
B

L 04314-67

ACC NR: AP6018388

Fig. 1. Use of the plasticity ψ during short-set drawing of pipes of steels 20 (a), 45 (b), 30KhGSA (c), and Kh18N10T (d); numbers on the curves correspond to the change in pipe diameter d_1/d_0 as a result of drawing. $S_x/S_o =$ ratio of elongation coefficients.



production cycle, resulting in considerable savings in production costs. Orig. art. has: 1 table, 2 graphs, and 1 equation.

SUB CODE: 11/ SUBM DATE: none/ OTH REF: 001

Card 2/2. of

L 10451-67 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HM

ACC NR: AP6022508

SOURCE CODE: UR/0133/66/000/004/034d/0349

42

41

AUTHORS: Kaufman, M. Sh.; Shaykevich, S. A.; Kolmogorov, V. L.; Gleyberg, A. Z.;
 Aleshin, V. A.; Moiseyev, G. P.; Vostrikov, G. A.; Likhenshteyn, D. Ye.; Gasilov,
 V. V.; Kuznetsov, B. N.; Borisev, L. M.

ORG: none

TITLE: Manufacture of two-layer pipes with continuous longitudinal channels between layers

SOURCE: Stal', no. 4, 1966, 348-349

TOPIC TAGS: pipe, steel, metal tube, metal forming

ABSTRACT: A method for manufacturing double layer steel Kh18N10T pipes with continuous longitudinal channels between the layers was developed. Two methods for the production of channels on the outer surface of the inner pipe were investigated--a rolling method and a cutting method. A schematic of the experimental installation is presented (see Fig. 1). It was found that both methods yielded pipes with smooth surfaces and uniform inner channels between the layers. The overall rate of pipe production, employing the cutting or drawing method, was 200 meters/hour. Double layer pipes having a diameter from 17 to 45 mm have been produced industrially. The following people took part in the experimental work: P. S. Ryshikov, N. A. Fedotovskiy, A. F. Michkov, Ye. I. Tikhonov, and Ya. Z. Grinberg.

UDC: 669.774.35

Card 1/2

ACC NNR AP6022508

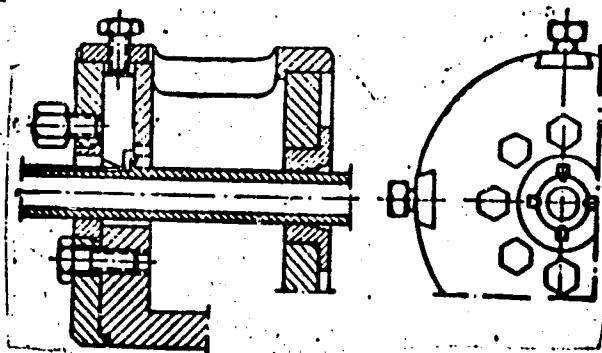


Fig. 1. Yoke for drawing longitudinal channels on the outer surface of pipes.

Orig. art. has: 3 graphs.

SUB CODE: 11 / SUBM DATE: none

Bimetal 13

010670

ACC NR: AP7005760

SOURCE CODE: UR/0126/67/023/001/0170/0173

AUTHOR: Kolmogorov, V. L.; Ural'skiy, V. I.; Kozlov, G. D.

ORG: Ural NIIChERMET

TITLE: On the theory of hydrostatic extrusion of brittle metals

SOURCE: Fizika metallov i metallovedeniye, v. 23, no. 1, 1967, 170-173

TOPIC TAGS: hydrostatic extrusion, plasticity, shear stress, molybdenum, zinc, beryllium, tungsten

ABSTRACT: The plasticity Λ_p (degree of shear deformation at moment of fracture) of metals depends on their indicator σ/T of stressed state (where σ is the mean hydrostatic pressure and T is the intensity of shear stresses), as has been established for Mo, Zn, Be and W. An analysis of the pertinent plasticity diagrams for Mo, Zn, Be and W, taken from Pugh (NEL Report, no. 142, March 1964) and other investigators, warrants the following conclusions: There exists a certain critical stressed state $(\sigma/T)_{cr.1}$ at which transition from the plastic to brittle state or vice versa takes place. It is possible to assume the existence of a second

Card 1/2

UDC: 620.16.539.374

ACC NR: AP7005760

CIA-RDP86-00513R000823910004-4"

characteristic indicator $(\sigma/T)_{cr.2}$ at which transition of the metal to a state of unlimited plasticity takes place; then deformation is not accompanied by any loss of plasticity. The variation in Λ_p as a function of the indicator of stressed state differs sharply for different metals. Thus for Be Λ_p increases slowly with decrease in σ/T . The growth rate of Λ_p for Mo and W is roughly the same, but Mo is much more plastic. Thus at zero σ/T (torsion, pure shear, etc.) Mo may undergo deformation with 68% reduction in cross sectional area while W is absolutely nonplastic. The plastic deformation of a metal is feasible if the metal's $(\sigma/T)_{cr.1}$ exceeds its σ/T . If this condition is satisfied and σ/T is not smaller than $(\sigma/T)_{cr.2}$, the deformation of the metal is possible only up to a point; in all cases the degree of deformation must be lower than the limiting Λ_p which leads to fracture. A formula is derived for the utilizable plasticity margin of metals. In this connection, the possibilities of hydrostatic extrusion (without counter-pressure) are considered for Mo, Zn, Be and W. An analysis of stressed state reveals that extrusion of this kind is feasible for Mo and Be since the critical indicator of transition to brittle state is much higher (-0.94) for these two metals. The pressing of Zn and particularly W (considering certain fluctuations in plasticity) is difficult to accomplish, in view of the high likelihood of cracking of the products. "In conclusion, the authors are indebted to K. P. Rodionov for his kind provision of a translation of Pugh's work." Orig. art. has: 2 figures, 7 formulas.

SUB CODE: 13, 11/ SUBM DATE: 13Jun66/ ORIG REF: 005/ OTH REF: 002
Card 2/2

KOLMOGOROV, V.N., gazosvarshchik

Oxygen cylinder handbarrow. Stroi. truboprov. 9 no.4:34 Ap '64.
(MIRA 17:9)

1. Pochinkovskoye rayonnoye upravleniye, Pochinki, Gor'kovskoy obl.

ACC NR: AR6024837

SOURCE CODE: UR/0169/66/000/004/G003/G004

15

AUTHOR: Bekzhanov, G. R.; Brodovoy, V. V.; Gol'dschmidt, V. I.; Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Klyuchin, I. N.; Kolmogorov, Iu. A.; Bachin, A. P.; Kotyarov, V. M.; Kur'min, Yu. I.; Kuminova, M. V.; Kumin, N. Ya.; Lyubetskiy, V. G.; Melent'yev, M. I.; Morozov, M. D.; Tret'yakov, V. G.; Tychkova, T. V.; Tearegradskiy, V. A.; Sydlin, R. A.

TITLE: A schematic geophysical map of Kazakhstan

SOURCE: Ref. zh. Geofizika, Abs. 4G17

REF SOURCE: Sb. Geol. rezul'taty prikl. geofiz. Geofiz. issled. stroyeniya zemni. kory. M., Nedra, 1965, 142-154

TOPIC TAGS: geologic survey, geologic prospecting, map

ABSTRACT: Regional geophysical surveys are conducted in Kazakhstan to divide the territory into tectonic regions, to study its plutonic structure, and to solve some problems of geophysical mapping. The results of these surveys will make it possible to establish structural belts and regions in which minerals are likely to be found. The basic material will be obtained from investigations of the magnetic and gravitational fields in combination with seismic studies. In the magnetic and gravitational fields, tectonic and plutonic zones are isolated which correspond to terraces in the

Card 1/2

UPC: 550.311(374)

ACC NR: AR6024837

Mohorovicic discontinuity. Methods of regional geophysics are used to study the plutonic structure of a folded base, the structure and thickness of sedimentary sheaths, and to indicate prospective petroleum bearing uplifts. [Translation of abstract]

M. Speranskiy

SUB CODE: 08

Card 2/2

L 42131-66 E/T(1) Q/C/C
ACC NR: AT6028379

SOURCE CODE: UR/0000/65/000/000/0142/0154/15

AUTHOR: Bachin, A. P.; Bekzhanov, G. R.; Brodovoy, V. V.; Gol'dshmidt, V. I.;
Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Klenchin, I. N.; Kolmogorov,
Yu. A.; Kotlyarov, V. M.; Kuz'min, Yu. I.; Kuminova, M. V.; Kunin, N. Ya.;
Lyubetskiy, V. G.; Melent'yev, N. I.; Morezov, N. D.; Tret'yakov, V. G.; Tychkova,
T. V.; Tsaregradskiy, V. A.; Eydlin, R. A.

ORG: none

TITLE: Geophysical sketch map of Kazakhstan

SOURCE: International Geological Congress. 22d, New Delhi, 1964, Geologicheskiye
rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady
sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 142-154

TOPIC TAGS: Kazakhstan geophysics, map, regional mapping, tectonics, ~~geophysical~~
~~regional study~~

ABSTRACT: On the basis of regional geophysical and geological investigations
(seismic, gravimetric, magnetoelectric), a composite geophysical sketch map of the
physical fields of Kazakhstan has been compiled. From this map, the major tectonic
zones, deep structures, and geological structural zones are defined. Long zones
representing high field gradients in the gravitational and magnetic fields reflect
deep geosutures, which seismic sounding data suggest are scarps in the M-discontinuity.

Card 1/2

L 42131-66

ACC NR: AT6028379

Among the major structural zones of Kazakhstan defined are: 1) the Turgayskaya, 2) the Petropavlovskaya, 3) the Uspenskaya, 4) the Tokrauskaya, and 5) the Dzhaleir-Naymanskaya. Regions of magmatism are also defined. In the tectonic depression zones, contour lines indicate the thickness of the sedimentary cover, overlying the folded basement, and possible oil-bearing formations. Orig. art. has: 1 figure. [DM]

SUB CODE: 08/ SUBM DATE: 06Jan65/ ATD PRESS: 5063

Curd 2/2

Kolmogorov, Yu. A.

AUTHOR: Kolmogorov, Yu.A. 132-58-2-15/17

TITLE: On Errors in the Measuring of Bore-Hole Bendings With the Polyakov Device (O pogreshnostyakh pri zamerakh iskrivleniy burovых skvazhin priborom Polyakova)

PERIODICAL: Razvedka i Okhrana Nedr, 1958, Nr 2, pp 57-58, (USSR)

ABSTRACT: The bendings of slanted bore-holes in the Sukhrin group of iron ore deposits in Gornaya Shoria were usually measured with the Polyakov device. The author found that an error occurred systematically in these measurements. Thus, devised a table by which these errors could be rectified at once. There is 1 figure and 1 table.

ASSOCIATION: Tel'besskaya ekspeditsiya (The Tefbes Expedition)

Card 1/1 1. Bore hole bending-Measurement

3(5)

SOV/132-59-6-9/16

AUTHOR: Kolmogorov, Yu.A.

TITLE: A Simple Method to Determine the Volume of Ore Bodies Between Non-Parallel Cross-Sections

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 6, pp 52 - 54 (USSR)

ABSTRACT: The author describes methods proposed by A.S. Zolotarev and A.P. Prokof'yev to determine on the map the volume of an ore body between two non-parallel cross-sections. He also proposes his own method of calculation of the volume either of slanting blocks of ore or steeply dipping lense-like bodies. The methods are described in detail. There are 6 diagrams and 2 Soviet references.

Card 1/2

A Simple Method to Determine the Volume of Ore Bodies Between
Non-Parallel Cross-Sections SOV/132-59-6-9/16

ASSOCIATION: Kompleksnaya tematicheskaya ekspeditsiya Kazakhstanskogo geofizicheskogo tresta (The Joint Thematic Expedition of the Kazakhstan Geophysical Trust)

Card 2/2

KOLMOGOROV, YU.A.

Importance of local aeromagnetic anomalies in exploring for gold
deposits. Vest. AN Kazakh. SSR 16 no.7:87-90 Jl '60.

(Gold ores) (Magnetism, Terrestrial) (MIRA 13:8)

KCLMOGOROV, Yu.A.

Distribution and genesis of secondary quartzite massifs in central
Kazakhstan, based on geophysical data. Trudy Inst.geol.nauk
AN Kazakh.SSR no.4:48-51 '61. (KIRA 14:10)
(Kazakhstan—Quartzite)

BENZHANOV, G.R.; KOIMOGOROV, Yu.A.; TSAREGRADSKIY, V.A.

Relation of endogenous ore deposits in Kazakhstan to faults,
intrusive activity, and crustal structure. Izv. Akad. Kazakh. SSR.
Ser. geol. 22 no. 5:3-17. 8-0 '65.

(MIRA 18:12)

1. Institut geologicheskikh nauk im. K.I. Satpayeva, Alma-Ata.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4

SHCHERBA, G.N.; KOLMGOROV, Yu.A.; KUMINOVA, M.V.; MIROSHNICHENKO, L.A.

Subsurface mobile zones in central Kazakhstan. Izv. AN Kazakh.
SSR. Ser. geol. no.1:3-22 '62. (MIRA 15:5)
(Kazakhstan—Geology, Structural)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4"

KOLMOGOROVA, P.P.

Numerical solution of improper integrals encountered in the interpretation of magnetic and gravitational anomalies by means of electronic digital computers. Geol.i geofiz. 4:115-118 '62.
(MIRA 15:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.
(Electric digital computers) (Prospecting—Geophysical methods)

ACCESSION NR: AT4044074

S/2994/63/000/021/0022/0075

AUTHOR: Karataev, G. I., Serbulenko, M. G., Gusev, Yu. M., Kolmogorova, P. P., Luk'yanova, N. N., Puchkov, Ye. P., Sarycheva, Yu. K.

TITLE: Solving some of the problems of geophysical prospecting on electronic computers

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. Trudy*, no. 21, 1963, Geofizicheskiy sbornik. no. 4: Primeneniye elektronnykh tsifrovych mashin pri reshenii nekotorykh zadach geofiziki (Geophysical papers, no. 4: Using electronic computers in solving some geophysical problems), 22-75

TOPIC TAGS: geophysical prospecting, computer programming, gravity, magnetic field, magnetic prospecting

ABSTRACT: When computers are used, more realistic assumptions may be made to replace the idealized formulations which give inadequate interpretations of geophysical anomalies. In the present paper, a classification is given of the main problems of geophysical interpretation. Examples of computer application to geophysical problems include: 1. transformation of the observed anomalous field into the upper half-space; 2. calculation of the field in the lower half-space; 3. computing of vertical and horizontal

Card 1/4

ACCESSION NR: AT4044074

derivatives of various orders from observed anomalies; 4. distinguishing components which reflect geological structure in the study of crystal structure; and 5. constructing contact surfaces and determining the elements of perturbing masses. The authors then deal with calculation of the improper integrals encountered in geophysical interpretation and estimate the errors resulting, using model fields for specific cases. Recommended formulas are given for two and three-dimensional problems. Integral representation of anomalous potential fields is then treated, and formulas are derived and tabulated for computing the coefficients of the cubature formula and the quadratic sum. Detailed instructions are given for construction of tangential gravitating planes, correction for the effects of local relief, and the preparation of structural and topographic maps for computer processing. The following computer programs are listed: 1. evaluating anomalous fields in the lower and upper half-space; 2. computing vertical gradients of various orders; 3. calculating horizontal derivatives of any order; 4. calculating functions orthogonal to observed functions and values of regional anomalies; 6. filtering errors in observations; 7. solution of the direct problem of gravitational prospecting for the case of one or several tangential gravitating surfaces; 8. obtaining constants of contact

Card 2/4

ACCESSION NR: AT4044074

surfaces; 9. determining lodes and the physical nature of perturbations; 11. averaging anomalous fields; 12. evaluating errors in relief. Brief descriptions are given of programs for solving the quadrature and cubature formulas, a subroutine for formulating true addresses on the grid, and a program for calculating the correlation functions for several paths traced out in a field. The theoretical predictions were confirmed. Most of the computer time was spent on reading in and punching out data. This work makes it possible to solve complex problems relating to the correlation of morphologies of geophysical fields of different origin. "Acknowledgements are given to E. E. Fotiadi, corresponding member of the SSSR Academy of Sciences, and to Prof. A. I. Zaborovskiy, R. F. Volodarskiy and T. I. Landa of MGU (Moscow State University), as well as to the Vy*chislitel'ny*y tsentr SO AN SSSR(Computer Center, Siberian Division, SSSR Academy of Sciences). Orig. art. has: 3 tables, 7 figures and 145 formulas.

ASSOCIATION: Institut geologii i geofiziki, Sibirskoye otdeleniye, Akademiya Nauk SSSR (Institute of Geology and Geophysics, Siberian Division, SSSR Academy of Sciences)

Card 3/4

KOLMOGOROVА, P.P.

Conference on the use of electronic digital computers for solving
problems of gravity and magnetic prospecting. Geol. i geofiz.
no.6:112-113 '62. (MIRA 15:7)

(Electronic digital computers)
(Prospecting--Geophysical methods)

S/044/63/000/002/034/050
A060/A126

AUTHOR: Kolmogorova, P.P.

TITLE: Numerical solution of improper integrals encountered in the interpretation of magnetic and gravitational anomalies, using electronic digital computers

PERIODICAL: Referativnyy zhurnal, Matematika, no. 2, 1963, 17 - 18, abstract 2V63 (Geologiya i geofizika, 1962, no. 4, 115 - 118)

TEXT: The author considers the numerical solution of "two-dimensional" problems: the conversion of an anomalous field into an upper and lower half-space, the calculation of the vertical and horizontal gradients of the anomalies. For evaluating the functional

$$I = \frac{1}{\pi} \int_{-\infty}^{+\infty} p(x) U(x) dx,$$

where $U(x)$ is the transformed function, $p(x)$ is a differential weighing

Card 1/2

Numerical solution of improper integrals

S/144/63/C00/002/034/050
A060/A126

function (the transformation nucleus), the quadrature formula of the form

$$I = \sum_{i=0}^n K(x_i) U(x_i)$$

is derived. By varying the coefficients $K(x_i)$ it is possible to numerically solve all problems on the transformation of anomalous fields. It is indicated that a special program has been constructed and checked out for evaluating that quadrature formula on electronic-digital computers of the "Strela" type, which makes it possible to work out several paths simultaneously. For the solution a special "gage" is picked - a kind of linear template -, on which coefficients $K(x_i)$ are disposed to the right left at equal intervals. The numbers of cells in the template are constant. In the course of computation the template is shifted relative to the initial function specified in the working memory of the computer. A block diagram of the program is shown. The computation time with full loading of the working memory is about 7 - 10 min. There are 4 references.

I.F. Shelikhova

[Abstracter's note: Complete translation]

Card 2/2

KARATAYEV, G.I.; SERBULENKO, M.G.; GUSEV, Yu.M.; KOLMOGOROVA, P.P.;
LUK'YANOVA, N.N.; PUCHKOV, Ye.P.; SARYCHEVA, Yu.K.

Solution of some problems in gravity and magnetic prospecting
by means of computers. Trudy Inst. geol. i geofiz. Sib. otd.
AN SSSR no.21:22-88 '63. (MIRA 17:11)

KOMLEV, Valentin Aleksandrovich; GELLERTOV, Georgiy Nikolayevich;
SUKHAREV, Yuriy Nikolayevich; KOLMOGOROVA, Vera
Polikarpovna, st. nauchn. sotr.; ZIZIN, Boris
Grigor'yevich; LEVITSKIY, Vladimir Vsevolodovich;
GORBOVETS, N.N., inzh., red.

[Bench test of continuous prestressed concrete trusses;
practices of the construction trusts of the Bashkir
Economic Council] Stendovoe izgotovlenie tsel'nykh pred-
varitel'no napriazhennykh zhelezobetonnykh ferm; iz opyta
stroitel'nykh trestov Bashkirskogo sovnarkhoza. Moskva,
Gosstroizdat, 1962. 23 p. (MIRA 17:7)

1. Akademiya stroitel'stva i arkitektury SSSR. Nauchno-
issledovatel'skiy institut organizatsii, mekhanizatsii i
tekhnicheskoy pomoshchi stroitel'stva. 2. Glavnyy inzhener
Bashkirskogo nauchno-issledovatel'skogo instituta po
stroitel'stvu (for Komlev!). 3. Starshiy inzhener Bashkirskogo
nauchno-issledovatel'skogo instituta po stroitel'stvu
(for ~~Zizin~~). 4. Bashkirskiy nauchno-issledovatel'skiy institut
po stroitel'stvu (for Gellertov, Sukharev, Kolmogorova).
5. Glavnyy tekhnolog tresta "Sterlitamakstroy" Bashkirskogo
sovnarkhoza (for Levitskiy).

KONLEV, V.A., inzh.; GELLERTOV, G.N., inzh.; SUKHAREV, Yu.N., inzh.;
KOLMOGOROVA, V.P., inzh.

Prestressed trusses with self-anchoring wire and rod reinforcement.
Trudy BashNIIStroi no.l:132-166 '62. (MIRA 17:3)

8/137/61/000/003/048/069
A006/A101

AUTHORS: Chaplinskiy, I.A., Kashcheyev, A.F., Kalmogorova, V.P.

TITLE: On corrections to strained state in the journal of specimens

PERIODICAL: Referativnyy zhurnal Metallurgiya, no. 3, 1961, 26, abstract 3Zh164
("Tr. Khim.-metallurg. in-ta Sib. otd. AN SSSR", no. 14, 1960, 153-158)

TEXT: Corrections to mean tensile stress in the journal of specimens suggested by a number of authors, were experimentally checked. A comparison was made of linear elongation and compression curves of quenched and tempered "50" grade steel and technically pure Fe in delivery state. During compression tests friction forces, acting upon the transmission planes of compressing forces, were removed by multiple greasing of the specimen butts. A comparison of plastic deformation curves was made in coordinates of intensity of true stress σ_1 versus intensity of true deformation ϵ_1 . It was established that the corrections to the strained state in the specimen journal suggested, were insufficient, in particular, for metals with a metastable structure, due to the effect of the magnitude of the spherical component of the stress tensor. It is shown that when using N.N. Davi-

Card 1/2

On corrections to strained state in the journal ...

S/137/61/000/003/048/069
A006/A101

denkov's and N.I. Spiridonova's correction on the approximate allowance for the effect of the magnitude of the spherical tensor from the hydrostatic tensile stress on the resistance to plastic deformation, results are obtained which are practically in agreement with the theory of the magnitude of the spherical stress tensor affecting the resistance of metal to plastic deformation.

L. G.

[Abstracter's note: Complete translation.]

Card 2/2

KOLMOGOROVA, V. V.

GRITSAY, M.K.; LAVRENKO, Ye.M.; KOLMOGOROVA, V.V.; YEZHKOV, M.A.; BERKOVICH, B.I.; LEKOVA, T.Kh.

Sandfly fever and its control in the areas of Odessa Province,
formerly Ismail' Province. Med.paraz. i paraz.bol. 26 no.1:71-73
Ja-F '57. (MLRA 10:6)

1. Iz Ukrainskogo instituta malyarii i meditsinskoy parazitologii
imeni prof. V.Ya.Rubashkina (dir. instituta I.A.Demchenko) i
parazitologicheskikh otdeleniy Ismail'skoy gorodskoy, Reniyskoy i
Bolgradskoy rayonnykh sanitarno-epidemiologicheskikh stantsiy.

(PAPPATACI FEVER, prev. and control
in Russia)

SHCHERBOV, D.P.; KOLMOGOROVA, V.V.

Fluorimetric determination of microgram amounts of zinc.
Zav.lab. 28 no.6:649-652 '62. (MIRA 15:5)

1. Kazakhskiy institut mineral'nogo syr'ya.
(Zinc--Analysis)
(Fluorimetry)

SHCHERBOV, D. P.; KOLMOGOROVA, V. V. Prinimala uchastiye;
SHEBALINA, V. I.

Determination of zinc in iron minerals with 8-(p-toluenesulfonylamino)-quinoliné. Metod. anal. khim.reak. i prepar.no.
4:125-128 '62. (MIRA 17:5)

1. Kazakhskiy institut mineral'nogo syr'ya (KazIMS).

KOLMOGOROVA, Ye. Ya., Cand Biol Sci -- (diss) "Materials on the comparative histology of the nervous system. On the structure of the nervous system of *Opisthorchis felineus* (Rivolta, 1884)." Perm', 1959. 15 pp; (Perm' State Medical Inst); 180 copies; price not given; (KL, 22-60, 134)

KOIMOGOROVA, Ye.Ya.

Structure of central parts of the nervous system in *Opisthorchis felineus*. Zool. zhur. 38 no.11:1627-1633 N '59 (MIRA 13:3)

1. Chair of Histology, Perm Medical Institute.
(Liver fluke) (Nervous system--Worms)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4

KOLMOGOROVSEV, B.A., inzhener.

Proper shape of a bucket. Mekh.stroi.10 no.10:13-14 0 '53. (MLRA 6:9)
(Excavating machinery)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4"

RESHETNIKOVA, N. V.; KOLMOGORTSEV, F. F.

Physics-Study and Teaching

Physics excursions out of doors. No. V. Reshetnikova, F. F. Kolmogortsev. Fiz. v shkole no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1957, Uncl.

2

KOIMOVSKAYA, A.I.

Using α -formaldehyde resin for gluing articles by the cold method without compressing. Dem. prom. 13 no. 3827 Mr'64
(MIRA 3757)

KOLMOVSKOY, A., inzh.

Glass blocks in housing construction. Zhil.stroi. no.5:17-19 My
'60. (MIRA 13:7)

(Glass construction)

KOLMOVSKOY, A., inzh.

Glass and lightweight reinforced concrete panels with joints. Zhil.
stroi. no.12:28-29 '61. (MIRA 15:2)
(Glass construction) (Lightweight concrete)

KOLMOVSKOY, A.A., inzh.

Use of new types of construction glass in railroad buildings and
structures. Trudy MIIT no. 132:146-163 '60. (MIRA 14:1)
(Glass construction)
(Railroads—Buildings and structures)

KOLMOVSKOY, A.A., instn.

Elements made of glass blocks and reinforced concrete based
on lightweight mortars and concretes. Trudy MIIT no.152:
164-172 '62. (MIRA 16:6)

(Glass construction)
(Lightweight concrete)
(Mortar)

SOLOV'YEV, S.P., kand.tekhn.nauk; DUBOV, E.M., inzh.; KOLMOVSKOY, A.A., inzh.

Hermetic industrial buildings with exterior walls of glass reinforced concrete. Prom. stroi. 41 no.2:9-12 F '64. (MIRA 17:3)

KOLMOVSKOY A.A., inzh.

Glass as a hygienic construction material. Gig. i san. 26 no.6:
81-84 Je '61. (MIRA 15:5)

1. Iz Moskovskogo instituta inzhenerov zheleznodorozhnogo transporta
imeni I.V.Stalina.
(GLASS CONSTRUCTION--HYGIENIC ASPECTS)

KOLOMOVSKOY, A.A., inzh.

Glass blocks in buildings in railroad transport. Trudy MIIT
no.140:130-141 '62. (MIRA 15:7)

(Glass construction)
(Railroads—Buildings and structures)

KOLMOZEV, S. M.

KONOGRAY, Valentin Polikarpovich; KOLMOZEV, S.M., redaktor; ABRAMOV, V.I.
redaktor; PROZOROVSKAYA, V.O., tekhnicheskiy redaktor.

[Booklet for operators of mine ventilation installations] Pamiatka
dlia mashinista shakhtnykh ventiliatornykh ustanovok. Moskva.
Ugletekhnizdat, 1955. 50 p. (MLRA 8:8)
(Mine ventilation--Safety measures)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4

SOBOLEV, L.N., inzh.; KOLMYCHEK, I.K., inzh.

Unit for automatic load distribution on molds. Mashinostroenie
no. 3831-32 My-Je '65.
(MIRA 18:6)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000823910004-4"

KOLMYCHEK, I.K.

Decreasing the effect of vibrations on the drive of knock-out
grates. Lit. proizv. no. 12:39 D '64. (MIRA 18:3)

KOLMYCHKOV, V.P., inzh.

Effect of trim on regulation of the water level in marine watertube
boilers. Sudostroenie 25 no.2:28-30 F '59. (MIRA 12:4)
(Trim (of ships)) (Boilers, Watertube)

KOLYACHKOV, V.P., inzh.

Automatic control of superheated steam temperature in marine boilers
with injection-type steam cooling systems. Sudostroenie 29 no.4:29-31
Ap '63. (NIRA 16:4)
(Boilers, Marine—Cooling) (Temperature regulators)

S/103/63/024/002/018/020
D201/D308

16.8000

AUTHOR:

Kolmychkov, V.P. (Leningrad)

TITLE:

Selecting autonomous control circuits according to
the required transients in objects to be controlled

PERIODICAL:

Avtomatika i telemekhanika, v. 24, no. 2, 1963,
277-279

TEXT:
The author considers the problem of autonomous con-
trol in linear continuous systems with given requirements as to the
quality of regulation of separate variables, the autonomous system
being assumed to be those in which a disturbance applied to the con-
trolled object changes one controlled variable only (although these
variables are interdependent). The method described of design of an
autonomous control system shows that, with a few exceptions, it is
possible to design such a control for any class of objects, the dyn-
amics of which are described by ordinary linear differential equa-
tions. The expressions derived for the transfer functions and the
required number of regulators make it possible to design a system

Card 1/2

Selecting autonomous control ...

S/103/63/024/002/018/020
D201/D308

of autonomous control which permits to divide n interdependent systems into n individual systems, each controlling one variable only in the required manner.

SUMMITTED: February 3, 1962

JB

Card 2/2

KOIMYCHKOVA, N.P.

Population of Northern Rhodesia. Uch.zap.LGU no.315:154-167 '62.
(MIRA 16:2)

(Rhodesia, Northern -Population)

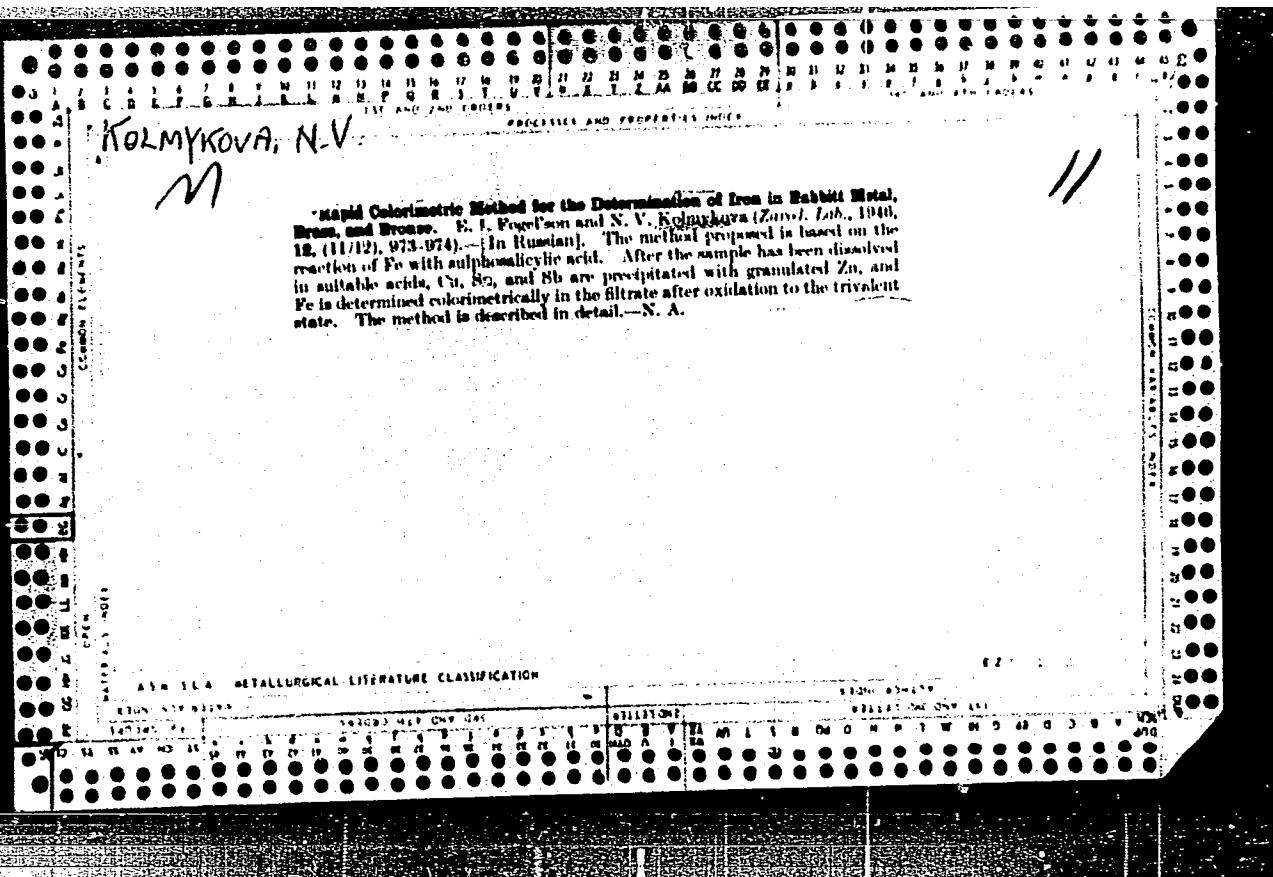
KOLMYCHKOVA, N.P.

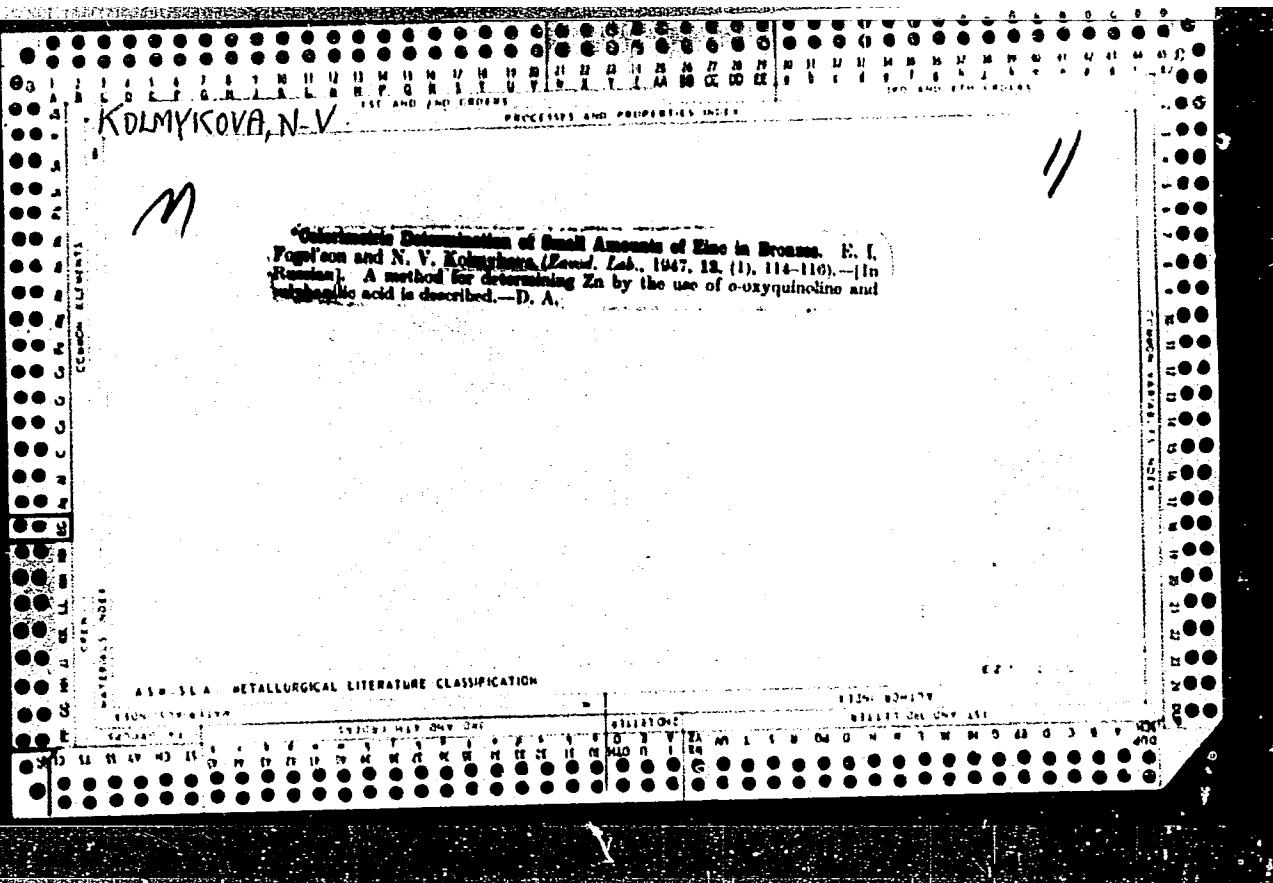
Role of Northern Rhodesia in the international division of labor.
Uch.zap.LGU no.315:168-187 '62. (MIRA 16:2)
(Rhodesia, Northern—Nonferrous metal industries)

BERSONS, I.; VEVERIS, O.; GUNNE, Kh. [Gunne, H.]; KOLMYKOVA, L.;
PELEKIS, L.

Detection of leaks in hermetized objects of small dimensions by
means of radioactive gas. Izv.AN Latv.SSR no.11:73-80 '63.
(MIRA 17:4)

1. Institut fiziki AN LatvSSR.





KOLMYKOVA, V. N.

KOLMYKOVA, V. N.: "The frequency of detecting acid- and alcohol-resistant bacilli in the stomach and pharyngeal fluids of practically healthy persons". Moscow, 1955. Min Health USSR. Central Inst for Advanced Training of Physicians. (Dissertation for the Degree of Candidate of MEDICAL Sciences)

SO: Knizhnaya Letopis' No. 51, 10 December 1955

KOLMYKOVA, V.N.; ORLOVAKAYA, Ye.V.

Antigenic activity of organs of leukemic mice and its relation to
the degree of leukemic infiltration. Vop.onk. 1 no.4:65-68 '55.
(MIRA 10:1)

1. Institut eksperimental'noy patologii i terapii raka AMN SSSR.
Adres avtorov: Moskva, 3-ya Meshchanskaya ul., d-61/2, korp.9.

(ANTIGENS AND ANTIBODIES,
leukemia antigenic activity in mice)
(LEUKEMIA, experimental,
antigenic activity of organism in)

KOLMYKOVA, V.N.

F-1

USSR/Microbiology. General Microbiology.

Abs Jour: Ref. Zhur.-Biol., No 7, 1958, 28834.

Author : Kolmykova, V.N., Shubin, A.S.

Inst : Not given.

Title : Electron-Microscopy of Acid-Resistant Bacteria.

Orig Pub: Elektronnaya mikroskopiya kislotupornykh bakteriy.
Labor. delo, 1956, No 5, 8-10.

Abstract: With the aid of the electron-microscope a study was conducted on morphology of cells of 2-3 week-old freshly isolated tubercle bacilli and 4-7 day-old cultures of the following acid-resistant saprophytes: Rabinovich and Friedman mycobacteria, cultures No. 225 and 227 isolated from scrapings of the inner surface of water faucets, and culture No. 228 isolated from humans.

Card : 1/3

14

* Inst. Experimental Pathology & Therapy of
Cancer, Acad Med Sci USSR

USSR/Microbiology. General Microbiology.

F-1

Abs Jour: Ref. Zhur.-Biol., No 7, 1958, 28834.

cell axis. Vacuoles are found in the cytoplasm of
some cultures of acid-resistant bacteria.

15

Card : 3/3

KOLMYKOVA, V.N.; YEROSHKINA, A.M.

Similarity and differences in the antigen property of tissues in
human sarcoma and leukosis. Vop. onk. 5 no.12:643-648 '59.

(MIRA 13:12)

(TUMORS)

(LEUKEMIA)

(ANTIGENS AND ANTIBODIES)

PISKUNOVA, G.A.; KOLMYKOVA, V.N. (Moskva)

Study of the common features of the antigenic composition of malignant tumors and polypi of the human stomach. Pat. fiziol. i eks. terap. 4 no.3:36-39 My-Je '60. (MIRA 13:7)

1. Iz otdela etiologii opukholey (zav. - deystvitel'nyy chlen AMN SSSR prof. A.D. Timofejevskiy) Instituta eksperimental'noy patologii i terapii raka (dir. - deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin) AMN SSSR.

(STOMACH—CANCER)

PISKUNOVA, G.A.; SHUBIN, A.S.; KOLMYKOVA, V.N.

Method for a virological examination of the blood of leucosis patients.
(MIRA 13:11)
Lab.delo 6 no.6:12-18 N-D '6v.

1. Otdel etiologii opukholey (zav. - deystvitel'nyy chlen AMN SSSR
Prof. A.D.Timofeyevskiy) Instituta eksperimental'noy i klinicheskoy
onkologii AMN SSSR.
(LEUKEMIA)
(ANTIGENS AND ANTIBODIES)

YEROSHKINA, A.M.; KOLMYKOVA, V.N.

Some features of the antigenic properties of embryonal human tissues in cultivation on various media. Biul. eksp. biol. i med. 49 no. 4:105-109 Sp '60. (MIRA 13:10)

1. Iz otdala etiologii opukholey (zav. - deyatvitel'nyy chlen AMN SSSR A.D. Timofeyevskiy) Instituta eksperimental'noy i klinicheskoy onkologii (dir. - chlen-korrespondent AMN SSSR prof. N.N. Bolkin) AMN SSSR, Moskva.
(TISSUE CULTURE)

YEROSHKINA, A.M.; KOLMYKOVA, V.N.

Preservation of specific antigens in human sarcoma cells after
prolonged cultivation. Vop. onk. 7 no.1:60-65 '61. (MIRA 14:2)
(TUMORS) (ANTIGENS AND ANTIBODIES)

KOLMYKOVA, V. N. (Moskva, 1-y Baltiyskiy per., d.3/25, kv. 44

Attempt at producing leukemia in guinea pigs using a patient's
blood. Vop. onk. 7 no.9:43-46 '61. (MIRA 14:12)

1. Iz otdela etiologii i patogeneza opukholey (zav. - deystv. chl.
AMN SSSR prof. A. D. Timofeyevskiy) Instituta eksperimental'noy i
klinicheskoy onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR
prof. N. N. Blokhin)

(LEUKEMIA)

KOLMEKOVA, V.N.

Immunological study of polyps and cancerous tumors of the human
stomach. Vop.onk. 7 no.11:61-64 '61. (MIRA 15:5)

1. Iz virusologicheskoy laboratorii (zav. - G.A. Piskunova) otdela
etiologii i patogenetika opukholey (zav. - deystvitel'nyy chlen AMN
SSSR prof. A.D. Kimofeyevskiy) Instituta eksperimental'noy i
klinicheskoy onkologii AMN SSSR (dir. - deystvitel'nyy chlen
AMN SSSR prof. N.N. Elckhin).
(STOMACH-CANCER) (COMPLEMENT FIXATION)

KOLMYKOVA, V.N. (Moskva, A-315, 1-y Baltiyskiy pereulok, 3/25, kv.44);
YEROSHKINA, A.M. (Moskva, A-315, Chasovaya ul., 27/12, komnata 50)

Antigenic properties of the blood and tumorous tissue in
people with sarcomas. Vop. onk. 8 no.9:26-29 '62.
(MIRA 17:6)

1. Iz laboratorii kul'tivirovaniya tkaney otdela etiologii i
patogeneza opukholey (zav. - deystvitel'nyy chlen AMN SSSR,
prof. A.D. Timofeyevskiy) Instituta eksperimental'noy i
klinicheskoy onkologii AMN SSSR (dir.- deystvitel'nyy chlen
AMN SSSR, prof. N.N. Blokhin).

YEROSHKINA, A.M. (Moskva, A-315, Chasovaya, d. 27/12, kv.50);
KOLMYKOVA, V.N. (Moskva, A-315, I Baltiyskiy prospekt, d.3/25, kv.44)

Change in the antigen properties of human embryonal tissue during
prolonged cultivation. Vop. onk. 10 no.3:27-33 '64. (

(MIRA 17:8)

1. Iz laboratori1 kul'tivirovaniya tkaney (zav. - deystvitel'-
nyy chlen AMN SSSR, prof. A.D. Timofeyevskiy) Instituta
eksperimental'noy i klinicheskoy onkologii AMN SSSR (dir. -
deystvitel'nyy chlen AMN SSSR prof. N.N. Blokhin).